

IN THE CLAIMS:

✓ 16
Please delete claims 1-~~15~~ without prejudice or disclaimer.

Please add new claims 16-36 as follows:

✓ 16
~~17~~ --16. Monoclonal antibodies or their Fv, Fab, and F(ab')2 fragments, which recognize an epitope of a bacterium of the species *T. equigenitalis*, and which do not exhibit a crossed reaction with an epitope or epitopes selected from the group consisting of epitopes of a bacterium of a different *Taylorella* species, and epitopes of a bacterium whose genus is different from *Taylorella*.

✓ 17
18. Monoclonal antibodies or their fragments, according to claim 16, which are capable of recognizing *T. equigenitalis* proteins selected from the group consisting of *T. equigenitalis* proteins of 150 kDa, 120 kDa, 52.7 kDa and 22 (LPS) kDa.

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19. 18. Monoclonal antibodies, which can be obtained from hybrids by a method comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of an inactivated strain of the species *T. equigenitalis* or extract(s) of such a strain,

cloning and selecting according to the capacity of their culture supernatant to recognize an epitope or epitopes of a bacterium of the species *T. equigenitalis*, and to not exhibit a crossed reaction with an epitope or epitopes selected from the group consisting of

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epitopes of a bacterium of a different *Taylorella* species or epitopes of a bacterium whose genus is different from *Taylorella*,
recovering the required monoclonal antibodies, and
optionally purifying said monoclonal antibodies.

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20 19. Immunogenic proteins, which are capable of interacting with monoclonal antibodies or their fragments according to claim 16.

21 20. Monoclonal anti-antibodies, and their Fv, Fab, and F(ab')2 fragments, which are capable of interacting with the monoclonal antibodies or their fragments according to claim 16.

Rule 126
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22 21. A method of obtaining monoclonal antibodies according to claim 16,
comprising:
fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of a strain of the species *T. equigenitalis* or extract(s) from such a strain,
screening hybridomas whose culture supernatants exhibit a positive reaction with a bacterium of the species *T. equigenitalis* or a fragment thereof,
selecting by cloning the hybridomas with respect to their reactivity, in relation to *T. equigenitalis*,

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Claim 20*
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recovering the monoclonal antibodies, and
optionally purifying said monoclonal antibodies.

A method of obtaining monoclonal antibodies according to claim 20,
comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice
immunized by means of monoclonal antibodies or their Fv, Fab, and F(ab')2 fragments,
which recognize an epitope of a bacterium of the species *T. equigenitalis*, and which do not
exhibit a crossed reaction with an epitope or epitopes selected from the group consisting of
epitopes of a bacterium of a different *Taylorella* species, and epitopes of a bacterium whose
genus is different from *Taylorella*,

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Claim 21*
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screening hybridomas whose culture supernatants exhibit a positive reaction
with one of the said monoclonal antibodies or their fragments,
selecting by cloning the hybridomas, and
recovering the required anti-antibodies.

24 23. Strains of hybridomas, which are capable of secreting the monoclonal
antibodies according to claim 16. ✓

25 24. Strains of hybridomas, which are capable of secreting the monoclonal
antibodies according to claim 20.

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25. A method of identification of a bacterium of the species *T. equigenitalis* in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or fragment thereof according to claim 16, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type.

26. A method of identification of a bacterium of the species *T. equigenitalis* in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed which may contain *T. equigenitalis* into contact, under conditions permitting a reaction of the antigen-antibody type, with an effective quantity of a compound selected from the group consisting of an immunogenic protein and a monoclonal anti-antibody or Fv, Fab, and F(ab')2 fragment thereof, wherein said protein and anti-antibody or fragment thereof are capable of interacting with monoclonal antibodies or their fragments according to claim 16, so as to detect the presence of antibodies directed against *T. equigenitalis*, and

detecting any product formed in a reaction of the antigen-antibody type.

27. Method of diagnosis of an infection by *T. equigenitalis* comprising:

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bringing one or more monoclonal antibodies according to claim 16 or their fragments, into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when *T. equigenitalis* is present in the sample.

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29 28. The method according to claim 25, further comprising blocking the non antigen-antibody reactions.

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30 29. Kits for application of a method of identification of a bacterium of the species *T. equigenitalis* in a specimen or in a culture, which include:
at least one compound selected from the group consisting of a monoclonal antibody or fragment according to claim 16, an immunogenic protein and a monoclonal anti-antibody or Fv, Fab, and F(ab')2 fragment thereof, wherein said protein and anti-antibody or fragment thereof are capable of interacting with said monoclonal antibody or fragment thereof,

reagents, for carrying out the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

31 ✓ 30. Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 16, in combination with a pharmaceutically inert vehicle.

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32 ✓ 31. Vaccinal compositions comprising at least one compound selected from the group consisting of an immunogenic protein and a monoclonal anti-antibody or Fv, Fab, and F(ab')2 fragment thereof, wherein said protein and anti-antibody or fragment thereof are capable of interacting with monoclonal antibodies or their fragments according to claim 16, in combination with physiologically acceptable excipients, in a quantity sufficient for evoking an immune response.

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33 ✓ 32. Kits according to claim 29, wherein said reagent for carrying out the intended immunologic reaction is selected from the group consisting of markers and buffers.

34 ✓ 33. Kits according to claim 29, wherein reagents for blocking the non antigenic- antibody reaction is included and said reagent is mouse serum.

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35 ✓ 34. The method according to claim 28, wherein the non antigen-antibody reaction is blocked by saturation of the specimen obtained by means of a serum from which anti-*T. equigenitalis* antibodies have been removed.